

## ***Health Consultation***

Independent Remedial Action Work Plan:

### **Sylvan Way Property Seattle, King County, Washington**

March 20, 2000

**Prepared by**

**Washington State Department of Health  
Under Cooperative Agreement with the  
Agency for Toxic Substances and Disease Registry**



## **FOREWORD**

The Washington State Department of Health (WDOH) has prepared this Health Consultation in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR). ATSDR is part of the U.S. Department of Health and Human Services and is the principal federal public health agency responsible for health issues related to hazardous waste. This Health Consultation was prepared in accordance with methodologies and guidelines developed by ATSDR.

The purpose of this Health Consultation is to identify and prevent harmful human health effects resulting from exposure to hazardous substances in the environment. The Health Consultation allows DOH to respond quickly to a request from concerned residents for health information on hazardous substances. It provides advice on specific public health issues. DOH evaluates sampling data collected from a hazardous waste site, determines whether exposures have occurred or could occur, reports any potential harmful effects, and recommends actions to protect public health.

For additional information or questions regarding DOH, ATSDR or the contents of this Health Consultation, please call the Health Advisor who prepared this document:

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## BACKGROUND AND STATEMENT OF ISSUES

The Washington State Department of Health (WDOH) prepared this health consultation at the request of the Washington State Department of Ecology (Ecology) to evaluate whether Jefferson Properties' August 1999, draft *Independent Remedial Action Work Plan for the 7001 Sylvan Way Property* adequately addresses the health concerns raised by the WDOH in its July 1999, draft health consultation.

The 15-acre Sylvan Way Property is undeveloped with unrestricted access.<sup>1,2</sup> It is located at 7001 Sylvan Way Southwest in West Seattle, a community in the southwest portion of the City of Seattle (Figure 1). The property is bounded by Sylvan Way Southwest to the north; a green belt to the east; SW Othello Street to the south; and 28th Avenue Southwest to the west.

The property was quarried for sand from the early 1950s to 1973.<sup>1</sup> Since 1973, the quarry excavations were filled with various types of soil and other waste.<sup>1,3</sup> The fill depth across the site ranges from zero to greater than 18 feet below ground surface (bgs).<sup>1</sup> No information, however, exists about the source of the fill.<sup>1</sup> Construction debris (e.g., concrete, wood, metal, brick) was observed in some of the fill during the environmental investigations.<sup>1</sup> Nearby residents observed sludge and battery disposal as well as other suspicious materials being disposed at the property since 1973.<sup>1,4</sup> Residents also report that some community members used the property to dispose of household and yard wastes.<sup>5</sup>

Jefferson Properties is proposing to construct approximately 150 housing units on the Sylvan Way Property. Soil excavation and placement will be required to prepare the property for construction.<sup>3</sup>

## DISCUSSION

Jefferson Properties' draft work plan presents cleanup standards, cleanup options, sampling and analytical schedules, and health and safety measures that are intended to prevent worker and community exposure to contaminants during the excavation and disposal of lead and petroleum contaminated media at the property.<sup>3,6</sup> The work plan is also intended to provide a response to concerns raised by WDOH's in its July 1999, draft Health Consultation for the property.<sup>3,7</sup>

The following items summarize the health concerns and recommendations presented by WDOH in its July 1999, draft Health Consultation (*italics*) along with a brief discussion about whether Jefferson Properties' draft work plan adequately addresses WDOH's concerns and recommendations:

1. *Insufficient data exist for characterizing surface soil contaminants at the undeveloped Sylvan Way Property. Because of this data gap, WDOH was unable to evaluate whether trespassers (children, teenagers, and adults who have access to the property) are being exposed to harmful levels of contaminants in surface soil.*

*WDOH recommended that access to the property be restricted until it was determined that surface soil does not pose a threat to human health.<sup>2</sup>*

The draft work plan addresses restricting access to the property during future excavation and disposal activities at the property so people will not be exposed to contaminants in surface soil.<sup>3</sup> However, it does not address restricting access to the property prior to those activities.

2. *Surface water samples collected as part of the environmental investigations at the Sylvan Way Property were obtained from areas of ponded surface water although it was noted that surface water discharged off of the property. Because of this limited sampling, WDOH recommended that surface water be prevented from discharging off the property until it could be determined that surface water did not pose a threat to human health.<sup>2</sup>*

The draft work plan briefly notes that surface water runoff from the property will be managed during construction.<sup>3</sup> The draft plan, however, does not address how potentially contaminated surface water will be managed at the property prior to construction activities.

3. *Insufficient data were collected during the environmental investigations conducted at the Sylvan Way Property to adequately characterize the potential contaminants in the various media (surface and subsurface soils including the fill, groundwater, surface water, and sediments) found at or adjacent to the property. As a result, WDOH was unable to evaluate whether future exposure to these environmental media would result in harmful health effects. WDOH recommended that further studies be conducted to better characterize the potential contaminants in the various media.<sup>2</sup>*

The draft work plan was intended to provide Jefferson Properties with a means of obtaining additional information about potential contaminants in the various environmental media so the materials could be properly handled, managed, used, and disposed as well as providing them with the means to protect workers and adjacent community members from potential contaminants encountered during construction. The work plan was also intended to prevent future residents from being exposed to harmful chemicals in various media.<sup>3,8</sup>

The draft work plan submitted by Jefferson Properties does not meet those objectives. The draft plans were developed based on lead and total petroleum hydrocarbons (TPHs) being the primary contaminants of concern at the property.<sup>3,7</sup> Lead and TPH, however, were selected by Jefferson Properties as the primary contaminant of concerns based on limited sampling conducted during environmental investigations at the property.<sup>2</sup>

As noted above, waste from unknown sources has been disposed at the property over approximately the last twenty-five years. Because the property was never fully characterized, the choice of lead and TPH as the primary contaminants of concern

may not be appropriate. Contaminants with greater potential health risks than lead or TPH may be located at the property.

4. *WDOH recommended that a contingency plan be developed to ensure that contaminated media (e.g., soil, surface water, sediment, groundwater) and waste materials (e.g., concrete debris, metal) are handled, managed, used, and disposed properly during construction.*<sup>2</sup>

The draft plan does not ensure that all potentially contaminated media will be properly handled, managed, used, or disposed.

## **CONCLUSIONS**

1. Jefferson Properties draft work plan does not address WDOH's health concerns and does not follow the recommendations provided in the July 1999 draft Health Consultation.

## **RECOMMENDATIONS**

1. The recommendations from WDOH's, July 1999, draft Health Consultation for the property should be incorporated into the remedial action work plan:
  - Restrict access to the property until it is determined that potentially contaminated surface soils do not pose a threat to human health.
  - Prevent surface water from discharging off of the property until it is determined that potential contaminant concentrations do not pose a threat to human health.
  - Conduct further studies to better characterize the potential contaminants in the various media (surface and subsurface soils including the fill, groundwater, surface water, and sediments) found at or adjacent to the property.
  - Develop a contingency plan to ensure that contaminated media (e.g., soil, surface water, sediment, groundwater) and waste materials (e.g., concrete debris, metal) are properly handled, managed, used, and disposed during construction.<sup>2</sup>

WDOH is available to review plans, data, and reports generated as a result of the above recommendations.

## **REFERENCES**

1. Environmental Assessment, Sylvan Way Property, Seattle, Washington, Hart Crowser, December 22, 1998.
2. Draft Health Consultation, Sylvan Way Property, Sylvan Way Southwest, Seattle, Washington, Washington State Department of Health, July 1999.
3. Draft Independent Remedial Action Work Plan for the 7001 Sylvan Way Property, Hydrometrics, Inc., August 1999.
4. Preliminary Assessment Petition to the Environmental Protection Agency, Region 10, Sunrise Heights Neighborhood Association, September 1, 1998.
5. Fairfield Way Subdivision Comment Letters, City of Seattle, Department of Construction and Land Use, May 4, 1999.
6. Draft Independent Remedial Action Health and Safety Plan for the 7001 Sylvan Way Property, August 1999.
7. Letter from David Nation, Hydrometrics, to Scott Kemp, Seattle - DCLU, dated September 10, 1999.
8. Personal communication with Jefferson Properties (Ray Stevenson) and Hydrometrics (David Nation), August 12, 1999, meeting at the Washington State Department of Ecology - NWRO Office.

## Glossary

<b>Agency for Toxic Substances and Disease Registry (ATSDR)</b>	The principal federal public health agency involved with hazardous waste issues, responsible for preventing or reducing the harmful effects of exposure to hazardous substances on human health and quality of life. ATSDR is part of the U.S. Department of Health and Human Services.
<b>Contaminant</b>	Any chemical that exists in the environment or living organisms that is not normally found there.
<b>Exposure</b>	Contact with a chemical by swallowing, by breathing, or by direct contact (such as through the skin or eyes). Exposure may be short term (acute) or long term (chronic).
<b>Groundwater</b>	Water found underground that fills pores between materials such as sand, soil, or gravel. In aquifers, groundwater often occurs in quantities where it can be used for drinking water, irrigation, and other purposes.
<b>Media</b>	Soil, water, air, plants, animals, or any other part of the environment that can contain contaminants.
<b>Remedial investigation</b>	A study designed to collect the data necessary to determine the nature and extent of contamination at a site.
<b>Risk</b>	The probability that something will cause injury, linked with the potential severity of that injury. Risk is usually indicated by how many extra cancers may appear in a group of people who are exposed to a particular substance at a given concentration, in a particular pathway, and for a specified period of time. For example, a 1%, or 1 in 100 risk indicates that for 100 people who may be exposed, 1 person may experience cancer as a result of the exposure.